



PATENT

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN THE APPLICATION OF:

FRANK LEONARD SCHADT, III, ET AL.

CASE NO.: PE0612 US PCT

SERIAL NO.: 09/807298

GROUP ART UNIT: 1756

FILED: APRIL 09, 2001

EXAMINER: YVETTE M. CLARKE

FOR: PHOTORESISTS AND PROCESSES FOR MICROLITHOGRAPHY

AMENDMENTAssistant Commissioner for Patents  
Washington, DC 20231

Sir:

In response to the Office Action dated September 18, 2002, please amend the above-referenced application as follows:

IN THE SPECIFICATION:On page 5, line 10 amend as follows:

photosensitive compositions of this invention, typically will contain between about 3% to about 40% by weight of monomer units containing protected acid groups, preferably between about 5% to about 50%, and more preferably between about 5% to about 20%. The branch segments of such a preferred branched polymer typically contain between 35% to 100% of the protected acid groups present. Such a branched polymer when completely unprotected (all protected acid groups converted to free acid groups) has an acid number between about 20 and about 500, preferably between about 30 and about 330, and more preferably between about 30 and about 130, and analogously the ethylenically unsaturated macromer component preferably has an acid number between about 20 and about 650, more preferably between about 90 and about 300 and the majority of the free acid groups are in the branch segments.

On page 6, lines 17, 18, 20 and 34 amend as follows:

The branch segments attached to the linear backbone segment can be derived from ethylenically unsaturated macromers prepared according to the general descriptions in U.S. Patent 4,680,352 and U.S. Patent 4,694,054. Macromers are prepared by free radical polymerization processes employing a cobalt compound as a catalytic chain transfer agent and particularly a cobalt(II) compound. The cobalt(II) compound may be a pentacyanocobalt(II) compound or a cobalt(II) chelate of a vicinal imino-hydroxyimino compound, a